

## REMARKS

Claims 1-9 are pending in the application. Claims 7-9 have been withdrawn from consideration as being drawn to a non-elected invention. Claims 1-6 have been examined and stand rejected. Claims 1, 2 and 4-6 have been amended. The specification has been amended to provide SEQ ID NOS as requested by the Examiner and a substitute sequence listing is transmitted herewith. The abstract has been amended. No new matter has been introduced. Applicants respectfully request reconsideration and allowance of Claims 1-6 in view of the foregoing amendments and following comments:

### Objection to the Specification

The specification has been amended to address the objections raised by the Examiner. The specification has been amended to add SEQ ID NOS after the nucleotide sequence disclosures on page 32, line 5, page 33, lines 9-14, page 37, lines 24 and 26, and page 39, lines 5-6. No new matter has been added. Accordingly, applicants request removal of the objection to the specification.

### Objection to lack of SEQ ID NOS in FIGURE 7 and/or the *Brief Description of the Drawings*

The Examiner objected to the absence of SEQ ID NOS in either FIGURE 7, which discloses nucleotide sequence, or the *Brief Description of the Drawings*, which does not contain the required corresponding SEQ ID NOS. The description of FIGURE 7 has been amended to include a table showing the SEQ ID NOS that correspond to each nucleotide sequence in the drawing. Accordingly, applicants request removal of the objection to FIGURE 7.

### Objection to the Abstract

The Examiner has objected to the abstract of the disclosure on the basis that it does not allow the public generally to determine quickly from a cursory inspection the nature and gist of the invention. The abstract has been amended as suggested by the Examiner. A substitute

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abstract page is submitted herewith that contains the amended limitation of Claim 1 directed to the ss third nucleic acid (the target DNA), whereby the homologous sequence is not located at the 3' terminal portion of the ss third nucleic acid.

Rejection of Claims 1-6 Under 35 U.S.C. § 112, Second Paragraph

The Examiner has rejected Claims 1-6 under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 1 and 4 have been amended as suggested by the Examiner. Independent Claim 1, as amended, is directed to a method of constructing a DNA library having an increased content of a first dsDNA by removing a second dsDNA from the library comprising (1) adding a third ss nucleic acid to the DNA library, said third ss nucleic acid containing a sequence homologous to a 3' terminal portion of a first strand of the second dsDNA, the homologous sequence being located at other than the 3' terminal portion of the third ss nucleic acid, said third ss nucleic acid having a 3' terminal sequence that is different from that of the second dsDNA, and (2) adding a RecA protein to the DNA library, thereby catalyzing homologous recombination between the 3' terminal portion of the first strand of the second dsDNA and the third ss nucleic acid to form, at the 3' terminal portion of the second dsDNA, a triple stranded portion consisting of the first strand of the second dsDNA, the third ss nucleic acid, and a second strand of the second dsDNA, at the 3' terminal portion of the second dsDNA. The phrase "and a RecA protein to the DNA library" finds support throughout the specification (e.g., see page 12, line 1, to page 14, line 10, and page 18, lines 13-21). Support for a third ss nucleic acid containing a sequence homologous to a 3' portion of a first strand of the second dsDNA, the homologous sequence being located at other than a 3' terminal portion of the third ss nucleic acid, and a 3' terminal sequence that is different from that of the second dsDNA is found in the specification, *inter alia*, at page 16, lines 1-17, and page 18, line 5, to page 19, line 2. Support for adding a RecA protein to the DNA library, thereby catalyzing homologous recombination

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between the 3' terminal portion of the first strand of the second dsDNA and the third ss nucleic acid to form at the 3' terminal portion of the second dsDNA, a triple stranded portion which consists of the first strand of the second dsDNA, the third ss nucleic acid, and a second strand of the second dsDNA, at the 3' terminal portion of the second dsDNA finds support in the specification, *inter alia*, at page 18, line 20, to page 19, line 2. The amendments clarify that the claimed invention is directed to a method of constructing a DNA library having an increased content of a desired nucleic acid (the first dsDNA) by removing a specific undesired DNA (the second dsDNA) from the library by generating a triple stranded nucleic acid molecule comprising the first strand of the second dsDNA, the third ss nucleic acid, and the second strand of the dsDNA. The third ss nucleic acid contains sequence homologous to a 3' terminal portion of the first strand of the second dsDNA, where the homologous sequence is located at other than the 3' terminal portion of the third ss nucleic acid, typically at the central portion thereof, such that the 3' terminal sequence of the third ss nucleic acid and the first strand of the second dsDNA are not the same (non-homologous), which prevents ligation and circularization of the undesired second dsDNA.

Claim 4 was rejected as being indefinite for reciting third, fourth and fifth nucleic acids, but failing to recite a "second" nucleic acid. Claim 4, from which Claims 5 and 6 depend, has been amended and is directed to a method of constructing a DNA library having an increased content of a first dsDNA, the first dsDNA comprised of a first nucleic acid strand and a second nucleic acid strand, by condensing the first dsDNA from a DNA library containing the first dsDNA whose content is to be increased. The phrase "the first dsDNA comprised of a first nucleic acid strand and a second nucleic acid strand" finds support in the specification, *inter alia*, at page 23, lines 8-9, and at page 27, lines 5-6. The amendments clarify that the third, fourth,

and fifth nucleic acids cited in the claim follow in numerical order from the first and second nucleic acids that comprise the first and second strands of the first dsDNA.

Claim 6 has been amended to correct a typographical error by replacing "claim 1" with "claim 6."

In view of the foregoing amendments, it is believed that the Examiner's rejection of claims under 35 U.S.C. § 112 is now moot.

The Double Patenting Rejection

The Examiner has rejected Claims 1 and 2 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 6,613,522. Claims 1-3 were rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 6,613,522, in view of Stemmer et al., U.S. Patent No. 5,834,252. In view of the terminal disclaimer transmitted herewith, these rejections are believed to be moot.

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## CONCLUSION

In view of the foregoing amendments and remarks and the terminal disclaimer submitted herewith, Claims 1-6 are believed to be in condition for allowance. The Examiner is requested to contact applicants' representative at the telephone number set forth below to discuss any issues that may facilitate prosecution of the application.

Respectfully submitted,

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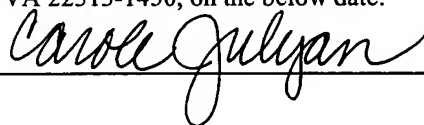


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